Microfilaria in a facial mass—a coincidental finding in fine needle aspiration cytology

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Clinical—A 42-year-old non-smoker male patient presented with a large swelling over the right side of the face around the orbital region for 7 months duration; the swelling was gradually increasing in size and painful.

On examination, it was 8 cm × 5 cm, fixed to deeper structure, had an irregular surface, and displaced his nose to the left side. The right eye was completely disfigured. The overlying skin shows ulceration and crusting. There was serosanguinous discharge from the mass.

Opposite eye was absolutely normal (Figure 1). There was no cervical lymphadenopathy. Other systems were also normal. Peripheral blood examination revealed eosinophilia with low haemoglobin level (Hb: 9 gm/dl).

Fine needle aspiration cytology (FNAC) of the swelling revealed microfilaria with a clear space at the cephalic and caudal ends and areas of undifferentiated tumour cells in dyscohesive clusters in a haemorrhagic background (Figure 2). It was purely a coincidental finding as there was no suggestive clinical history of filariasis.

Figure 1. The mass over the right side of the face
Discussion—Filariasis is a major public health problem in a tropical country like India. It is transmitted by the *Culex* mosquito and caused by two closely related nematodes: *Wuchereria bancrofti* and *Brugia malayi*. Infective larvae penetrate the feeding wound in the skin, enter the lymphatics and travel to the regional lymph nodes. Once fertilised, the female discharges several thousand microfilariae (150–300 µm), which dwell in the peripheral blood for 5–10 years. Despite the high incidence of filariasis, microfilaria in FNAC is not a common finding. There are reports of single or small number of cases of microfilariasis at various sites such as lymph node, breast lump, bone marrow, bronchial aspirate, nipple secretions, pleural and pericardial fluid, ovarian cyst fluid, and cervicovaginal smears.¹ One proposed mechanism in this finding is rupture of lymphatic vessels and liberation of microfilaria within the mass.

In the medical literature of microfilaria with malignant neoplasm we have found some case reports describing coexistence of microfilaria with primary malignant tumour.²

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References: